

4210

CATALOG



TELETYPE® 4210 MAGNETIC TAPE DATA TERMINALS

MAY, 1972 EDITION

4210

TERMINALS OFFER YOU . . .



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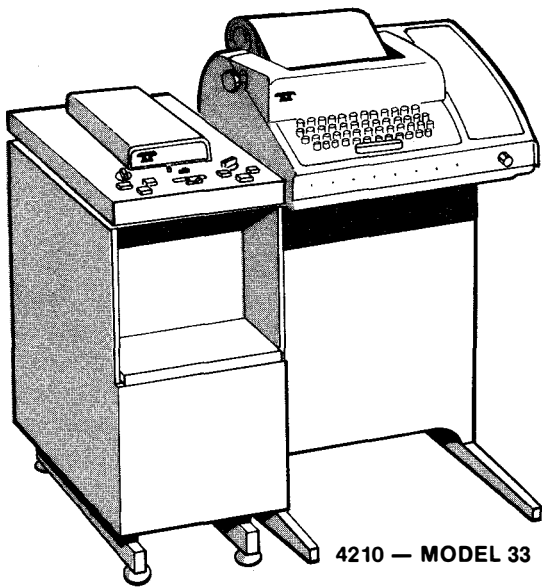
Increased Efficiency in Data Communications

Teletype® 4210 magnetic tape data terminals increase the versatility, economy and speed of your data communications system. Coupled with Teletype send-receive terminals, they provide higher-speed on-line transmission and reception capabilities. They can move data at speeds up to 2400 words per minute and give you reductions in line costs. What's more, their automatic capabilities give the added efficiency of after-hours, unattended data communication. In addition, their compact tape cartridges hold more than 150,000

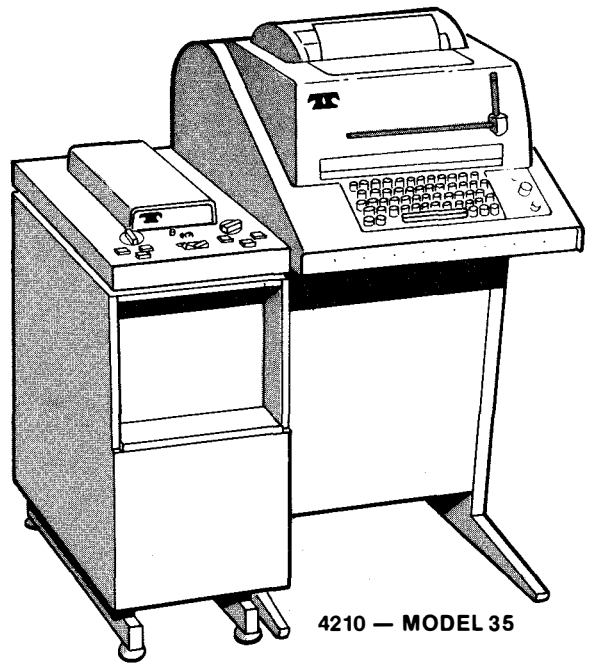
characters and make it easier to store, handle and work with data. Editing and correction operations are easier, too.

Teletype 4210 magnetic tape data terminals have been developed through long research and extensive testing. They have proved themselves in widespread, trouble-free use. When you order these terminals, you get the best in data communications.

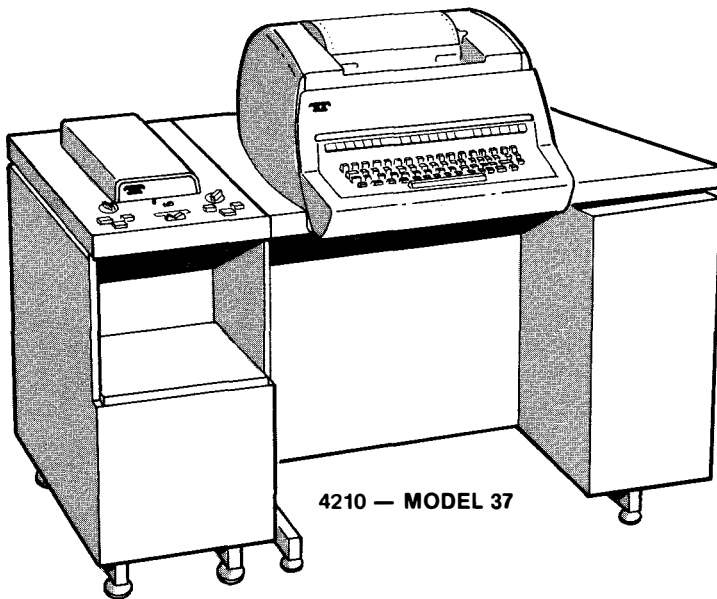
This catalog gives you the facts you want to know about Teletype 4210 magnetic tape data terminals. The how-to-order chart at the back of this catalog lets you pick the magnetic tape



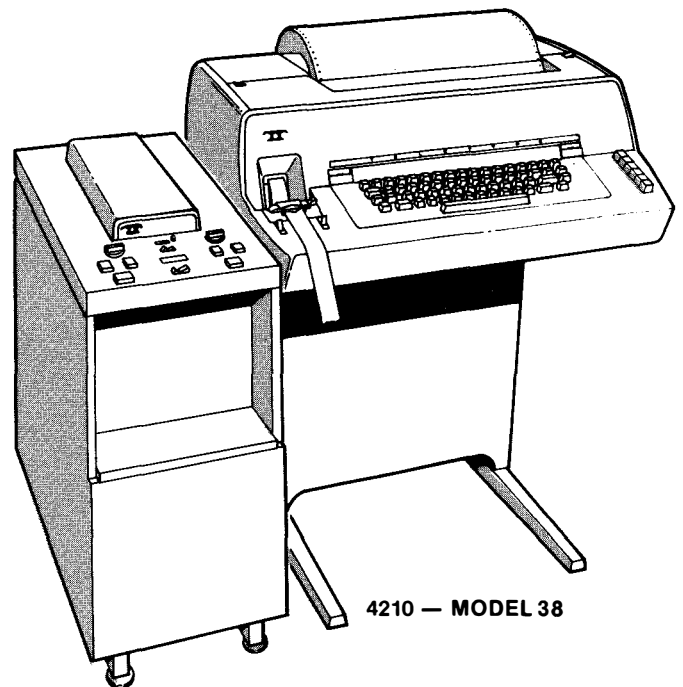
4210 — MODEL 33



4210 — MODEL 35



4210 — MODEL 37



4210 — MODEL 38

terminal that meets the requirements of your particular data communications system.

A Variety of Configurations

Teletype 4210 magnetic tape data terminals couple perfectly with Teletype model 33, 35, 37 and the new model 38 terminals. They bridge the gap between keyboard data preparation and higher-speed on-line transmission and reception.

To prepare tape, you simply type on the keyboard terminal with the magnetic tape data

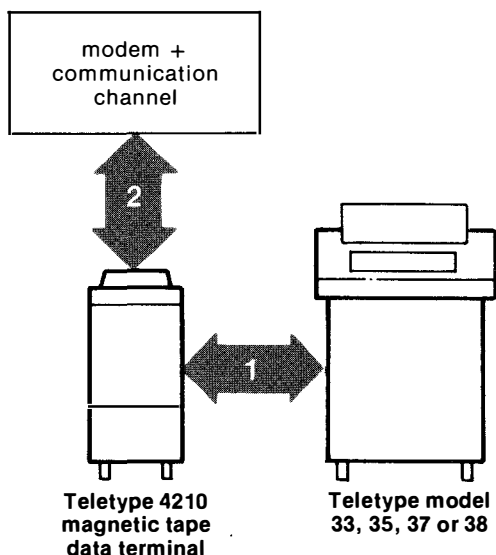
terminal in local receive mode. To send or receive at speeds up to 2400 baud, you switch to an on-line mode. You can choose to handle this either manually or automatically by the flip of a switch. If you wish, you can send or receive at standard speed (110 to 150 baud) through the modem associated with the Teletype terminal.

You can also use the 4210 magnetic tape data terminal as a stand-alone terminal for on-line transmission or reception at speeds up to 2400 baud.

Whichever way you use Teletype 4210 magnetic tape data terminals, operation is simple.

4210 MAGNETIC TAPE DATA TERMINALS

A VARIETY OF ARRANGEMENTS



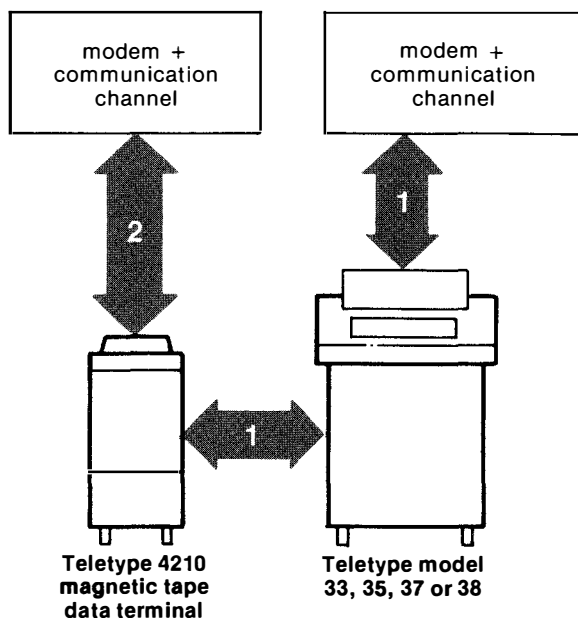
This combination adds higher speed capabilities to standard speed send-receive terminals.

ON-LINE

4210 terminal sends and receives at speeds up to 2400 baud, 240 char./sec.

OFF-LINE

You can prepare tape at keyboard speed — read tape and produce page copy at standard speed.



This combination uses two channels and enables you to transfer data at both medium speed and standard speed.

ON-LINE

4210 terminal sends and receives at speeds up to 2400 baud, 240 char./sec. Both the keyboard terminal and the 4210 terminal may send and receive on-line at standard speed.

OFF-LINE

You can prepare magnetic tape at keyboard speed — read tape and prepare page copy at standard speed.

SPEED OF OPERATION

1 Models 33, 35, 38
10 cps at 11-unit code

Model 37
15 cps at 10-unit code

2 Magnetic tape data terminal
1050 baud (105 cps at 10-unit code)
1200 baud (120 cps at 10-unit code)
*2000 baud (200 cps at 10-unit code)
*2400 baud (240 cps at 10-unit code)

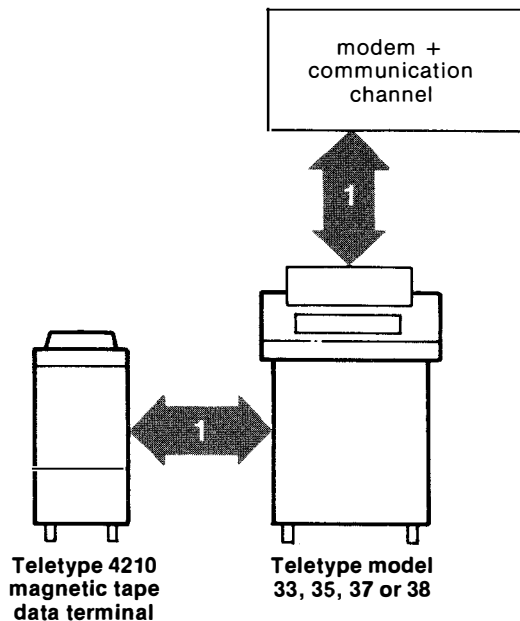
This combination permits you to operate at standard speed and take advantage of the 4210's convenient data handling capabilities.

ON-LINE

4210 terminal and keyboard terminal send and receive at standard speed.

OFF-LINE

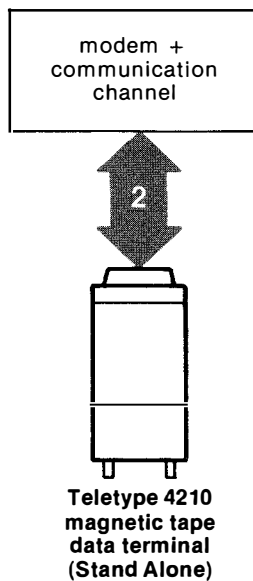
You can prepare magnetic tape at keyboard speed — read tape and prepare page copy at standard speed.



This stand-alone provides a common, on-line send-receive terminal for locations with a number of data preparation terminals.

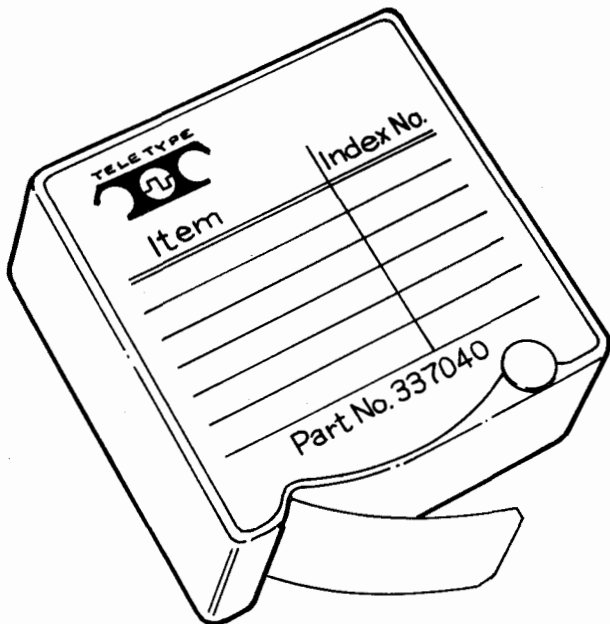
ON-LINE

Sends and receives at speeds up to 2400 baud, 240 char./sec.



**Data modem must provide timing pulse to achieve data transmission at:
 2000 baud — switched network
 2400 baud — private line*

4210 MAGNETIC TAPE DATA TERMINALS



HANDY TAPE CARTRIDGES

The 4210 magnetic tape data terminal uses reusable precision magnetic tape. The half-inch wide tape in the 3" x 3" x 1" cartridge holds over 150,000 characters recorded at a density of 125 characters per inch. A cartridge recorded on a Teletype magnetic tape data terminal can be read and transmitted by any other Teletype magnetic tape data terminal — at the same or different speeds.

Cartridges have a reusable record interlock plug to prevent accidental overwrite of data to be saved. Reflective markers on the tape trigger photo sensors on the terminal to indicate *beginning of tape*, *low tape*, and *end of tape*.

TAPE LOADING

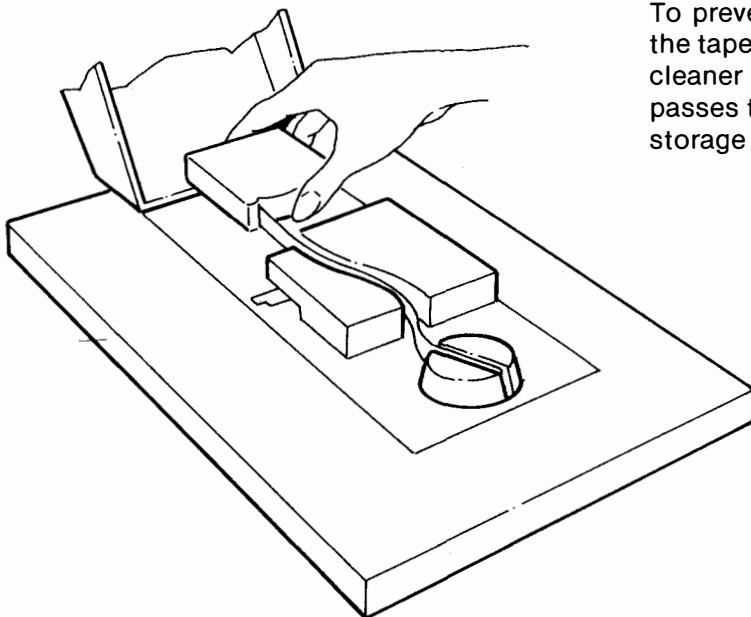
Straight-through threading makes tape loading exceptionally easy.

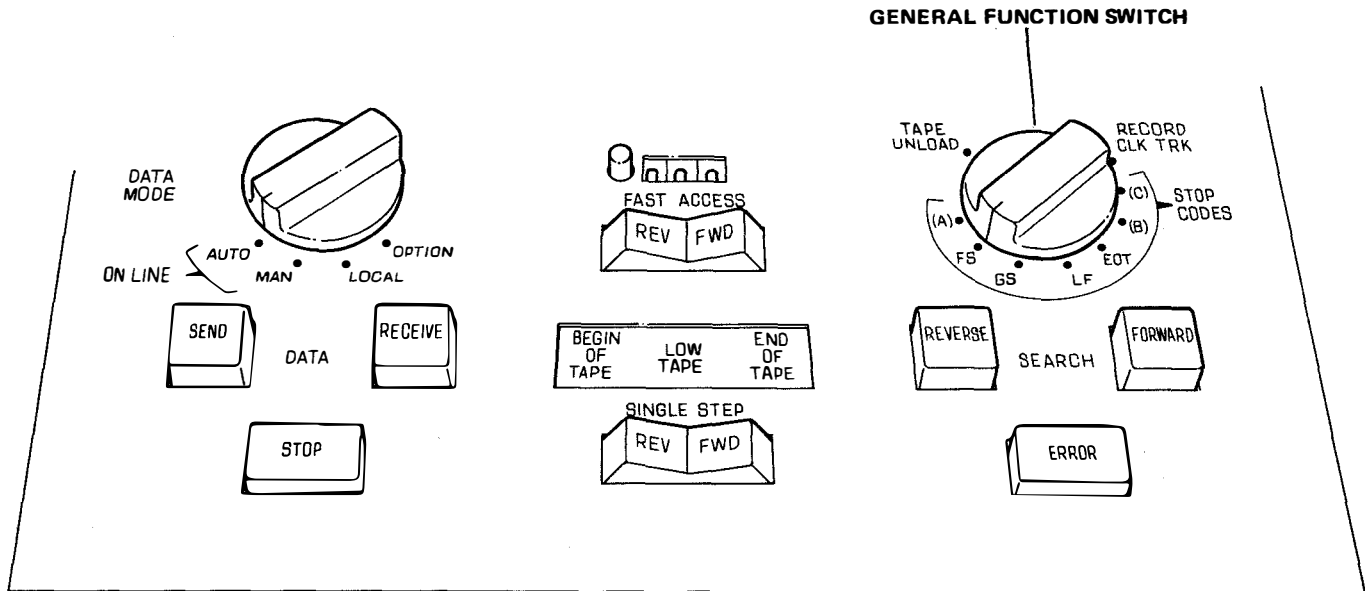
AUTOMATIC TAPE UNLOADING

To unload, simply turn the General Function switch to TAPE UNLOAD, then remove the cartridge.

TAPE CLEANERS

To prevent tape damage due to foreign particles, the tape drive is equipped with a tape cleaner. The cleaner is located so the tape is cleaned before it passes the read/write head. The terminal provides storage for two spare cleaners.





EASY OPERATION

The small group of switches on the 4210 control panel give you full control of your data communications. Consider how simply each of the main operations can be handled:

PREPARING TAPE

Set the Data Mode switch to LOCAL, press the RECEIVE button, then type the data, starting the message with a separator code (FS). If you happen to hit a wrong character and want to correct it, press the Single Step REV (reverse) button and type the right character. When you complete the message, type the EOT character.

Now you want to put the tape in position to send. Set the General Function switch to FS and press the Search REVERSE button. This rewinds the tape to the start of your message, ready to transmit. It's also ready to print out the message in case you want to check it. Just press the SEND button and the data will be printed out on your page printer. To put the tape back again in position to transmit, press the Search REVERSE button again.

TRANSMITTING THE MESSAGE

You can transmit the message by setting the Data

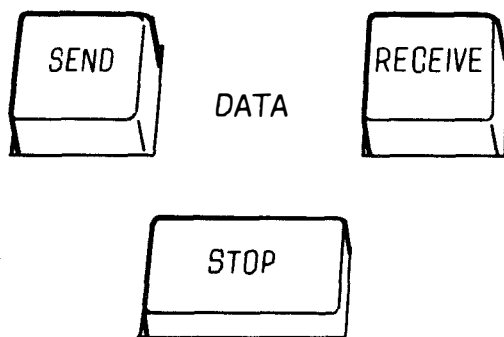
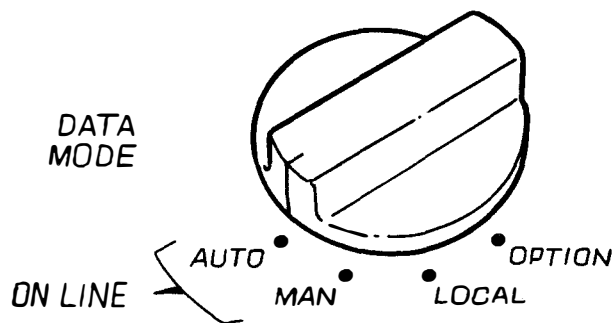
Mode switch to MAN or AUTO. The difference is as follows:

MAN — You call the remote terminal to which you wish to transmit, press the SEND button, and the data goes there. If that terminal has a message for you, you press the RECEIVE button and you get the message on your magnetic tape. To get a print-out, do as described before: Set the General Function switch to FS, press the Search REVERSE button to get the tape back to the beginning of the message. Then set the Data Mode switch to LOCAL, press the SEND button, and you'll get the print-out.

AUTO — This position allows unattended transmission and reception of data. This is especially advantageous for using your voice communication lines for data during off-hours. At the end of the working day, you load the tape, press the SEND button, and leave. The terminal does the rest. When it is called, it transmits the data automatically. If there are any messages for you, it receives the messages automatically on the tape. The next morning, you can have the terminal print out the data. Or, if you want, you can have the terminal print out the messages automatically and have them waiting for you in the morning. For this purpose, order a 4210 terminal with the Automatic Rewind and Local Print-out option described on page 13.

4210 MAGNETIC TAPE DATA TERMINALS

CLEAR, FUNCTIONAL CONTROLS



DATA MODE Switch

This 4-position switch controls the mode of operation of the 4210 terminal, determining whether it's on-line or off-line, at standard speed or high speed, automatic or requires an operator.

OPTION

This setting provides for automatic transmission and reception at standard speed (150 baud) when the 4210 terminal is coupled with a model 37 keyboard terminal equipped with a modem having the automatic answer feature.

LOCAL

This setting is for preparing, editing and reading tape. It also conditions the terminal for on-line transmission at standard speeds (110 or 150 baud) through Teletype model 33, 35, 37, or 38 terminals.

ON-LINE MAN

This setting provides for the transmission and reception of data at medium speed through the 4210 terminal and associated data modem under operator control.

ON-LINE AUTO

This enables the 4210 terminal to respond automatically to an incoming call if the data modem is equipped for automatic answer. Data transmission and reception is at medium speed. When the SEND button has been preselected and a call comes in, the 4210 terminal will transmit all data on tape. Then it will switch out of the send mode into the receive mode automatically and await return data. It remains in the receive mode for the rest of the call and all subsequent calls.

DATA CONTROLS

These two pushbutton controls work in conjunction with the DATA MODE switch to control the sending and receiving of data.

Sending Data

To switch in the terminal logic to read from the magnetic tape and transmit data, press the SEND button. The button will light to show that mode selection is operating. The position of the Data Mode switch (On-Line AUTO, On-Line MAN, LOCAL, OPTION) determines mode and speed of transmission.

Receiving Data

To switch in the terminal logic to receive incoming data and record it on magnetic tape, press the RECEIVE button. The button will light to show the receive mode is functioning.

STOPPING OPERATION

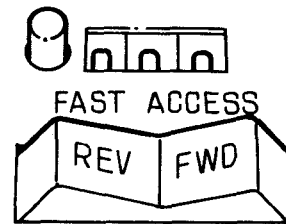
To take the magnetic tape terminal out of action, press the STOP button. This button lights when the terminal is in idle condition with power on. When the terminal is in operation, the light blinks.

TAPE POSITION Indicator

The 3-digit Tape Position Indicator provides an approximate reference point to help you locate recorded data on the tape. (The Search controls, in conjunction with the stop codes, locate the previously recorded data precisely for you, as explained later.) When you load a cartridge, press the counter reset button, and the reading will go to 000.

FAST ACCESS Switch

The Fast Access reverse and forward switches help speed the search for a particular block of data. When you press either, tape moves at 33 inches per second in the direction desired. The whole tape cartridge can be traversed from end to end in 36 seconds.



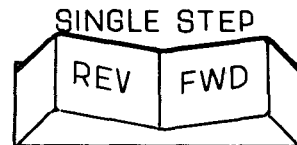
TAPE POSITION Indicator Lamps

These three lamps warn of certain tape conditions that require operator attention. When one of the lamps is lit, the operations involved are halted automatically until the operator takes necessary action. The lamps are controlled by two photo sensors on the tape transport which sense the reflective markers on the tape at various positions.



BEGIN OF TAPE Lamp

When this lamp is on, the receive function and all reverse tape functions (Search, Fast Access, Single Step) other than the Unload function are inhibited.



LOW TAPE Lamp

When this lamp is lit, the receive mode cannot be initiated. If the unit is in the receive mode before the low tape condition is sensed, the unit will continue to receive data until END OF TAPE is sensed or until incoming call is terminated.

SINGLE STEP Operation

Single-step operation is extremely useful in editing and correcting data. When the terminal is in either the stop or receive modes, you can move the tape one character at a time in the desired direction by pressing the SINGLE STEP REV or FWD switch.

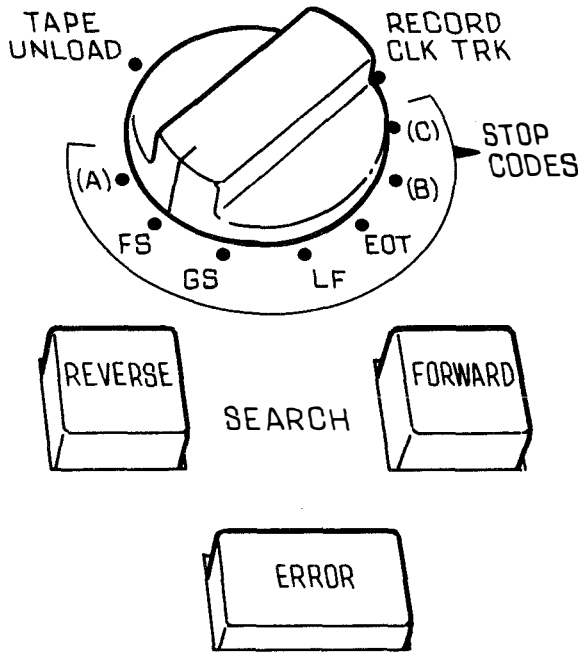
END OF TAPE Lamp

When this lamp is lit, all forward tape functions (Send, Search, Fast Access, Single Step) are inhibited.

When you press FWD, the tape will move forward one character position and the character will be read and transmitted. If the terminal is in the receive mode, it is automatically taken out of the receive mode and temporarily placed in the send mode for the duration of the one character transmission and then returned to the receive mode. When you press REV, the tape will move backward one character position and the character will be read but not transmitted. Again, if the terminal is in the receive mode, it is temporarily taken out of the receive mode to prevent the character from being erased.

4210 MAGNETIC TAPE DATA TERMINALS

CLEAR, FUNCTIONAL CONTROLS



LOCATING DATA BLOCKS

You can locate the exact beginning of a block of data on the magnetic tape by using the search controls in conjunction with the STOP CODES FS, GS, LF, and EOT on the General Function switch. You first get to the approximate position of the block of data you want by using the Fast Access switch. This moves the tape very fast (33 inches or over 4000 characters per second). However, because of its speed, it doesn't stop the tape right at the selected stop code. So you use it to get the tape to the approximate position you want, as indicated on the Tape Position indicator. Then you use the SEARCH switch which reads the tape in the desired direction at 400 characters per second. When the selected stop code is detected, the tape stops and the terminal is taken out of the search mode automatically. You can then use the Single-Step controls to locate the exact character you want within the block of data.

GENERAL FUNCTION SWITCH — STOP CODES

FS, GS, LF, EOT. These positions set up the terminal to recognize and stop the tape at the selected stop code, as per the following ASCII control codes:

Description	Control Codes							
	Bit Pattern							
	1	2	3	4	5	6	7	Parity
EOT End of Transmission	0	0	1	0	0	0	0	1
GS Group Separator	1	0	1	1	1	0	0	0
FS File Separator	0	0	1	1	1	0	0	1
LF Line Feed	0	1	0	1	0	0	0	0

(A), (B), (C). These are the settings for the extra options when the Character Recognition Expander or Automatic Rewind and Local Print-out features are added (see pages 12 and 13).

RECORD CLK. TRK.

A clock track must be recorded on a new tape before any data can be recorded. This position of the General Function Switch is used to pre-record this track automatically. Once the clock track has been recorded, it need not be re-recorded when making corrections, editing or recording over previous data.

TAPE UNLOAD

This position is used to rewind the tape into the cartridge. The rewind stops automatically when the magnetic tape is completely rewound in the cartridge.

SEARCH Switch

When the REVERSE or FORWARD buttons are pushed, the lamp in the button is lit and the tape moves in the selected direction at a speed of 400 characters per second until it reaches the selected stop code.

PARITY ERROR DETECTOR

The ERROR button lamp lights to indicate even parity errors sensed in any of the modes in which the tape is being read (Send, Search, Single Step). To turn off the lamp, press the ERROR button.

USEFUL TECHNICAL DATA

SPEED

On-Line — Magnetic tape data terminal as a stand alone or compatible with model 33, 35, 37 and 38 — up to 240 char/sec. at 10 bits/char. (2400 baud)

Local Model 33, 35, 38 — 10 char/sec. at 11 bits/char. (110 baud)

Model 37 — 15 char/sec. at 10 bits/char. (150 baud)

Recording — 9 track (8 data — 1 clock) MRB (modified return to bias)

Code — insensitive, except programmed ASCII search characters (see page 10)

Recording Density — 125 characters per inch (parallel)

Cartridge Capacity — 150,000 characters plus approximately 9,000 after entering low tape condition; tape length — slightly over 100 feet.

Tape movement speeds

Search — approximately 400 char. per second (7 min. full tape)

Fast Access — Greater than 4000 char. per second (less than 40 seconds full tape)

Tape Unload — Less than 40 seconds full tape

Maintenance — Recommended cleaning of tape head is once a week. Tape cleaner should be rotated once monthly for normal usage, twice monthly for heavy usage. Preventive maintenance is recommended every six months or 1,500 hours.

Dimensions

Styled For	Width	Height	Depth
Models 33, 35, 38	12"	29"	23"
Model 37 and Stand Alone	12"	30"	23"

Weight

Approximately 97 lbs.

Terminal Power

115VAC $\pm 10\%$ 60 Hz ± 0.5 Hz
 Option: 115VAC $\pm 10\%$ 50 Hz ± 0.5 Hz
 Approx. 150 watts idle 180 watts operating

Temperature and Humidity

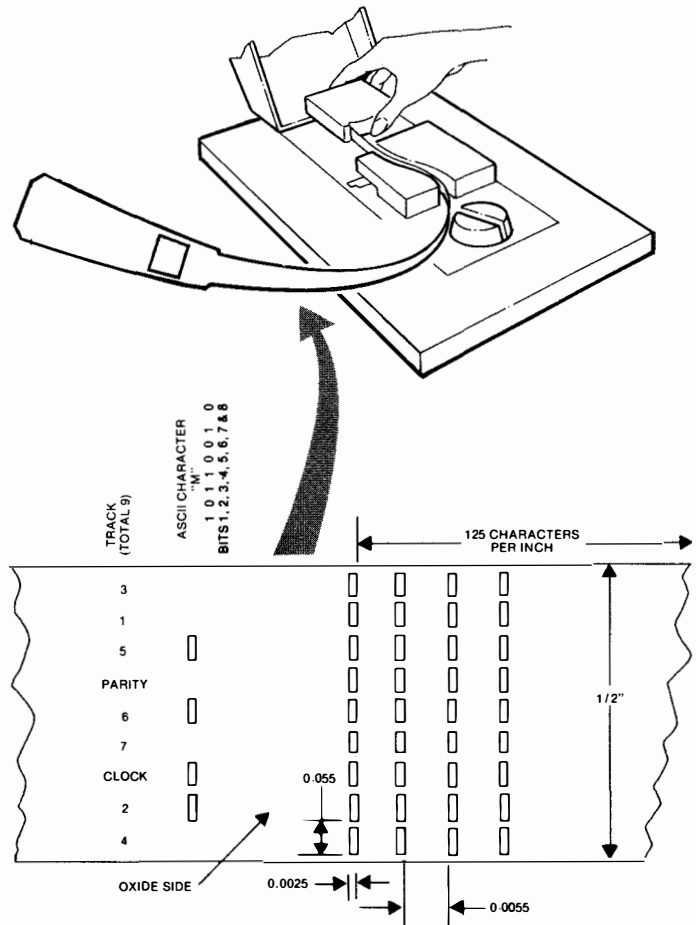
40° to 110° F. 95% Humidity

Paint Finish

Models 37, 38 or Stand Alone — Charcoal Gray and Ivory
 Models 33 and 35 — Ivory and Olive Gray

Interface

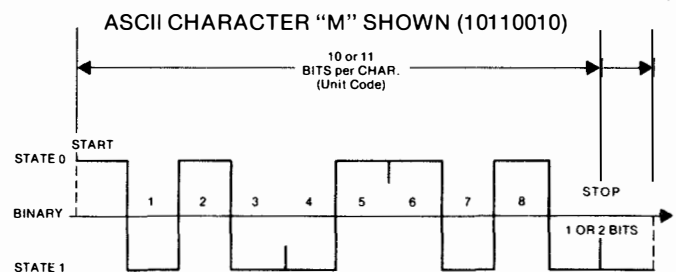
EIA-RS-232 Serial Start-Stop to data modem. 20 ma. to models 33, 35 and 38. RS-232 interface to model 37.



TERMINAL SEND/REC. EVEN PARITY —
 RECORDING IS IN ODD PARITY

= MAGNETIZED, represents a recorded state 0.
 UNMAGNETIZED it represents a state 1.

SERIAL SIGNAL WAVE FORM



Serial Signal Input Output (conform with EIA-RS-232)

VOLTAGE	BINARY STATE	LINE SIGNAL
-3V to -25V	ONE	MARK
+3V to +25V	ZERO	SPACE

4210 MAGNETIC TAPE DATA TERMINALS

TIME-SAVING OPTIONS

CHARACTER RECOGNITION EXPANDER

Flexible as the 4210 terminal is, it can be made even more versatile by adding the Character Expander feature. This feature provides various additional functions that facilitate search, transmission, error detection, and handling data in blocks, as shown in the table at the right. Nine different field-wired options are available with this feature. However, only one option can be chosen for each of the available settings of the General Function switch — (A), (B), and (C). Therefore no more than three options may be wired at one time.

SEARCH ONLY OPTION

This option adds a data separator code to provide faster and more precise location of data on the tape, in the Search mode. This option can be wired into any or all positions — (A), (B), or (C). Thus up to three search characters can be added to the basic search feature described on page 10.

SEARCH-SEND OPTIONS

When wired into setting (A), this option provides for situations that involve recording data from associated equipment *that cannot* generate the EOT code or for systems that use the EOT code to *perform an incompatible function*. With setting (A), the Search-Send option not only adds another data separator code for use in the Search mode, but it also complements the EOT code with an additional code for stopping the tape in the Send mode. A modified Search-Send option for setting (A) serves the same purpose but replaces the EOT code with the added data separator code. When wired into setting (B), this option adds another data separator code for stopping the tape in both Search and Send modes.

ERROR OPTIONS

These options are available for the (B) setting only. With the Error Search Only option, the entire tape can be checked for odd parity in 7 minutes in the Search mode. The Error Control Code Delay option stops the tape at odd parity errors when the terminal is in the Send mode.

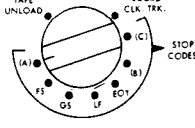
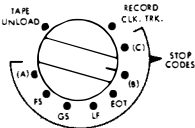
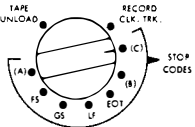
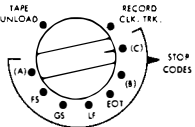
CONTROL CODE DELAY OPTION

This option enables the terminal to send data in blocks of the proper size. It is valuable where the terminal transmits in the Local Send mode to equipment that prints the data on various forms and for on-line transmission to computers that do not have enough input memory storage or are not programmed to accept a total transmission.

Detailed coverage of the Character Recognition Expander feature is given in "4210 Magnetic Tape Technical Reference, Part 2, Article 1."

CHARACTER RECOGNITION EXPANDER APPLICATIONS

When the 4210 terminal is equipped with the Character Recognition Expander feature, the various described functions can be selected by setting the General Function switch to the (A), (B), or (C) positions as listed in the following chart.

Setting of General Function Switch	Option (Field Wired)	Function
	Search only	Adds programmable character for stopping 4210 in Search mode.
	Search-Send	Adds programmable character for stopping 4210 in Search mode. Also adds programmable character, in addition to EOT, for stopping 4210 in Send mode at any setting of General Function switch.
	Search-Send (modified)	Adds programmable character for stopping 4210 in Search mode and replaces EOT with programmable character for stopping 4210 in any setting of the General Function switch.
	Search Only	Adds programmable character for stopping 4210 in Search mode.
	Search-Send	Adds programmable character for stopping 4210 in Search and Send mode.
	Error Search Only	Stops 4210 when parity error is detected in Search mode.
	Error Control Code Delay	Stops 4210 when parity error is detected in Send mode.
	Search Only	Adds programmable character for stopping 4210 in Search mode.
	Control Code Delay	<p>Enables 4210 to send data in blocks. In Local Send mode, 4210 stops on recognition of programmable character. Can be restarted by external contact closure or depressing Send button.</p> <p>In on-line Send mode, 4210 stops on recognition of programmable character, restart is controlled by reverse channel or the Send button.</p>

AUTOMATIC REWIND AND LOCAL PRINT-OUT

The Automatic Rewind and Local Print-Out feature can save you time and money by enabling the 4210 terminal to print out data received automatically without operator attention. You can receive the data and print it as page copy during off hours. Then both the operator and terminal will be free for work right from the start of the work day. In addition, to rewind and print-out, this feature also provides these further options:

- **Detection of premature channel disconnect.** This prevents the send data from being lost if the communication channel disconnects when the terminal is in the on-line Send mode.

- **On-line data blocking.** This permits the terminal to operate with computers that do not have enough input memory storage for a total transmission or are not programmed to accept it.
- **On-line testing.** This facilitates testing the communication channel and a remote 4210 terminal.

When the 4210 terminal is equipped with the Automatic Rewind and Local Print-Out feature, the various options can be selected by setting the General Function switch to the (A), (B) or (C) position as described below:

Note: The Automatic Rewind and Local Print-Out feature requires both the sending and receiving data (message) to be formatted in the following sequence: FS (File Separator), Data, EOT (End of Transmission).

Position (A) — Rewind and Print-Out, Detection of Channel Loss and On-Line Blocking

The basic rewind and print-out option and its various modifications, as well as the other options available at this position, are described in the following table:

OPTION AND FUNCTION	MODE	OPERATION
Basic Rewind Saves all sent and received data.	SEND	After sensing the EOT code, the terminal switches to the Receive mode.
	RECEIVE	Awaits incoming data.
	*REWIND	After receiving an EOT code, the terminal switches to the Local mode and rewinds the tape to the FS code.
	*PRINT-OUT	Page copy is produced by the associated printer.
Rewind mod. 1 Records over all sent and received data.	RECEIVE	At the end of the print-out, the 4210 reads the EOT code, switches to the on-line Receive mode and awaits incoming call.
	SEND REWIND RECEIVE	After sensing the EOT code at the end of the send data, the terminal rewinds the tape to the FS code, then switches to the on-line Receive mode to await incoming data.
	*REWIND	After sensing the received EOT code, the terminal switches to the Local mode and rewinds the tape to the received FS code.
	*PRINT-OUT	Page copy is produced by the associated printer.
Rewind mod. 2 Saves sent data; records over received data.	*REWIND RECEIVE	When the EOT code at the end of the data being printed is sensed, the terminal rewinds the tape to the received FS code, switches to on-line Receive mode to await incoming data.
	SEND	After sensing the EOT code at the end of the send data,
	RECEIVE	The terminal switches to the on-line Receive mode to await incoming data.
	*REWIND	When the terminal senses the received EOT code, it switches to the Local mode and rewinds the tape to the received FS code.
Rewind mod. 3 Saves received data; records over sent data.	*PRINT-OUT	Page copy is produced by the associated printer.
	*REWIND RECEIVE	After sensing the EOT code at the end of the data being printed, the tape is rewound to the received FS code, then the terminal switches to the on-line Receive mode to await incoming data.
	SEND REWIND	After sensing the EOT code at the end of the send data, the terminal rewinds the tape to the FS code and then switches to the on-line Receive mode
	RECEIVE	To await incoming data.
**Detect Loss of Channel In Addition to Rewind (OPTIONAL)	*REWIND	When the received EOT code is sensed, the terminal switches to the Local mode and rewinds the tape to the received FS code.
	*PRINT-OUT	Page copy is produced by the associated printer.
	RECEIVE	When the EOT code is sensed at the end of the data being printed the terminal switches to the on-line Receive mode to await incoming data.
**On-Line Data Blocking In Addition to Rewind (OPTIONAL)	SEND REWIND	When the terminal detects a communication channel disconnect before sensing the EOT code at the end of the send data, the tape is rewound to the send FS code.
Search to FS Code In Addition to Rewind	SEND	The terminal remains in the Send mode and awaits another call. This operation repeats until the Send operation is successfully completed.
	SEARCH	Same as described in Technical reference Part 3, Article 1, except the blocking code is restricted to one of the following two codes: RS (Record Separator) or the ^ (Circumflex) character.
	SEARCH	Adds to the terminal the ability to Search to the FS code with the General Function switch set in the (A) position.

***When the terminal is in the Automatic Rewind and Local Print-Out mode, the data set ignores the signal line and will not answer an incoming call until completion of these operations.*

The interface of the 4210 terminal provides a circuit for controlling the motors of the associated page printer (contact closure to ground). However, model 37 terminal are equipped with the required circuits for motor control.

***Loss of channel detect and data blocking may be completely disabled by strapping options.*

Position (B) — On-Line Testing

The communication channel and a remote 4210 terminal can be tested by having the 4210 terminal receive and record the data, automatically rewind to the beginning of the received data and send the data back to the originating terminal. At the originating terminal the received data is checked for accuracy by comparing it to the data sent.

Position (C) — On-Line Data Blocking

This option serves the same purpose as Control Code Delay (Modified 2) option with the Character Recognition Expander (described on page 11), but the blocking code is restricted to either RS (Record Separator) or the ^ (Circumflex) character. In addition to the On-Line Data Blocking feature, this position (C) option also provides an additional Search character — either RS (Record Separator) or the ^ (Circumflex) character.

4210 MAGNETIC TAPE DATA TERMINALS

SIMPLE ORDERING PROCEDURES

HOW TO ORDER

The following chart gives you full information for ordering the particular 4210 Magnetic Tape Data Terminal you need for your requirements. All you have to do to put together the part number to order is to add the proper suffix to the catalog number, as shown in the chart below and its notes. The catalog number is 4210A- for a 60 Hz. terminal and 4210B- for a 50 Hz. terminal. To the catalog number you add the suffix for the speed, option, and application you want. For example, if you want a terminal with a speed of 1200 baud and the

Character Recognition Expander feature for use with a model 35, the proper suffix is 2ED. So if you wanted a 60 Hz. magnetic tape data terminal to these specifications, you would order 4210A-2ED. If you wanted a 50 Hz. terminal to these specifications, you would order 4210B-2ED. If you wanted a 60 Hz. stand-alone terminal with a speed of 1050 baud and Character Recognition Expander feature, you would order 4210A-1AB; if you wanted a 50 Hz. stand-alone terminal to these specifications, you would order 4210B-1AB. Part numbers for accessories are listed after the notes.

4210 Ordering Information

(Circled numbers refer to the notes on page 15)

	Single Step Forward and Reverse	Fast Access Forward and Reverse	Search Forward and Reverse	3 Digit Counter	Low Tape/Tape-Out Indicator	Parity Error Indicator	4210 Input-Output Speed		Options		Catalog No. (60 Hz. Operation)	Compatible with Model					
							1050 Baud	1200 Baud	Automatic Rewind and Local Print-Out	Character Recognition Expander		33	35	37		38	
												Stand Alone	Model 33	Model 35	M-37 "Off-Line" Only	M-37 "On-Line"	Model 38
											Catalog No. Suffix						
X	X	X	X	X	X	X					4210A-	1AA	2CA	2EA	3AA	3BA	5AA
X	X	X	X	X	X	X			X		4210A-	1AB	2CB	2EB	3AB	3BB	5AB
X	X	X	X	X	X		X				4210A-	1AC	2CC	2EC	3AC	3BC	5AC
X	X	X	X	X	X		X		X		4210A-	1AD	2CD	2ED	3AD	3BD	5AD
X	X	X	X	X	X	X		X			4210A-		2CE	2EE	3AE	3BE	5AE
X	X	X	X	X	X		X	X			4210A-		2CF	2EF	3AF	3BF	5AF

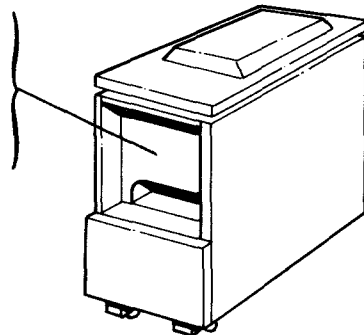
NOTES:

- ① Will operate at 2000/2400 baud synchronous by bit, asynchronous by character, 10-unit code) when used with a Bell System 201 type data set or equivalent. Utilizes the timing signals of data set.
The magnetic tape data terminal will also transmit on-line at standard speed using the data modem of the model 33, 35, 38 (110 baud) or model 37 (150 baud).
Other speeds may be available upon request.

- ② For operation with 115V AC 50 Hz. Terminals, use Catalog No. 4210B. For additional information, contact Teletype Corporation (see back cover.)

Terminals referred to in notes ③ thru ⑧ are shipped with all three of the following front panels. (You install the one you prefer.)

- 1. Blank Panel
- 2. Cut out for 804 Aux. Data Set or equivalent
- 3. Cut out for 202C Data Set or equivalent



- ④ Operates with TELETYPE® model 33 terminals having a UCC6 call control unit or any terminal listed in the model 33 catalog having a Electrical Service Unit with 20/60 ma. d.c. neutral signal line. For operation with a model 33 terminal having a built-in TELETYPE modem, contact Teletype Corporation (see back cover.)

- ⑤ Operates with TELETYPE model 35 (60 Hz.) terminals such as:

- KSR VCL 312 plus LP813 TD/ADJ — P. D. No. 101*
- VCL 312 plus LP817 TD/ATK — P. D. No. 102*
- VSL 330, 331 — P. D. No. 101B
- ASR VCL 319 plus LP813 TD/ATJ — P. D. No. 111
- VCL 319 plus LP817 TD/ATK — P. D. No. 112
- VCL 339 plus LP313 TD/ATJ — P. D. No. 111A
- VCL 339 plus LP817 TD/ATK — P. D. No. 112A
- VCL 387 plus LP813 TD/ATJ — P. D. No. 111B
- VSL 332, 333, 334, 335 — P. D. No. 111C

*To provide local mode operating current the following items must be installed on the M35 KSR terminals listed on P. D. No. 101 & 102:

- Rectifier assembly — 198209
- Cable assembly — 198249

For operation with a model 35 Terminal having a built-in TELETYPE modem, contact Teletype Corporation (see back cover.)

- ⑥ Model 37 can only be used off-line for recording data on magnetic tape or printing messages received by the magnetic tape terminal. On-line communications are provided at medium speed by using the magnetic tape terminal and its associated modem.
Operates with all model 37 (60 Hz.) terminals.

- ⑦ Model 37 can be used on-line as well as for the off-line operations described in ⑥. Model 37 and magnetic tape terminals can communicate on-line at 150 baud by using the standard speed modem of the model 37. In addition, the magnetic tape terminal can communicate on-line at a

higher speed using its associated medium speed modem. Operates with model 37 (60 Hz.) terminals coded 37-300-X.

- ⑧ Operates with all terminals listed in model 38 catalog having d.c. current and EIA voltage interface. For operation with a model 38 terminal having built-in TELETYPE modem, contact Teletype Corporation (see back cover.)

ACCESSORIES

Accessory	Teletype Part No.
Character Recognition Expander.....	322465
Automatic Rewind and Local Print-out.....	322485
Running time meter (60 Hz.).....	337425
Tape Cartridge.....	337040
Test Message Cartridge.....	337400
Recorder Head Cleaner.....	337401
Replacement Cleaners.....	337455
Cartridge Labels.....	337041

Data modems for use with models 33 and 35 may require a RS-232 interface.

The following Data Set Couplers provide this interface:

Model 33.....	186136
Model 35.....	312350

Special Character Hold Modification Kit

Used with sprocket feed Model 33 ASR's equipped with Form Feed..... 337415

Used with sprocket feed model 35 ASR's equipped with Form Feed, Vertical Tab, or Horizontal Tab..... 337418

(The above modification kit provides for stopping the magnetic tape data terminal when sending to the associated printer during a tab or form feed function — not required when using magnetic tape terminal with models 33/35 KSR or RO terminals.)

TECHNICAL REFERENCES

Available from TELETYPE CORPORATION

- 578-300-100TC General Description
- 110TC Description & Principles of Operation
- 200TC Installation
- 300TC Checkout & Trouble-shooting tape transport
- 700TC Adjustments & Lubrication
- 800TC Parts

Part 2

Article 1 — System Planning Guide for the TELETYPE 4210 Magnetic Tape Data Terminal in Computer-Oriented Communication Systems.

Part 2

Article 2 — An Example of Computer Software for Controlling the 4210 Magnetic Tape Data Terminal.

Part 3

Article 1 — "Blocking Data" When Using a 4210 Magnetic Tape Data Terminal as a Remote Computer Input Device.

Part 3

Article 2 — Automatic Rewind and Local Print-out.

For further information on any Teletype Corporation product lines, or for the location of your nearest sales or product service representative, please contact:

Sales headquarters—
5555 W. Touhy Ave.
Skokie, Illinois 60076

Product Service headquarters—
9930 Derby Lane
Westchester, Illinois 60153

or call TERMINAL CENTRAL—(312) 982-2500



TELETYPE CORPORATION

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GENERAL OFFICES: 5555 Touhy Avenue, Skokie, Illinois 60076 Telephone: (312) 982-2000—TWX: 910-223-3611
and TELEX: 25-4051 (both have 24 hour automatic answering service)